

CLAIMS

1. A method for making a transparent conductive film comprising introducing an organozinc compound, a dilution gas, and an oxidizing agent into a deposition chamber to form a transparent conductive film containing zinc oxide as a main component on a substrate disposed in the deposition chamber, wherein the dilution gas is hydrogen.

2. The method for making the transparent conductive film according to Claim 1, wherein the organozinc compound is diethylzinc.

3. The method for making the transparent conductive film according to Claim 1, wherein the oxidizing agent is water.

4. The method for making the transparent conductive film according to Claim 1, wherein a Group III element-containing compound is introduced into the deposition chamber so that the transparent conductive film containing zinc oxide as the main component doped with a small amount of the Group III element is formed on the substrate.

5. The method for making the transparent conductive film according to Claim 4, wherein the Group III element-containing compound is at least one of diborane ( $B_2H_6$ ) and trimethylaluminum ( $(CH_3)_3Al$ ).

6. A method for making a tandem thin-film photoelectric converter comprising a transparent electrode layer, at least

one amorphous silicon photoelectric conversion unit, at least one crystalline silicon photoelectric conversion unit, and a back electrode layer stacked in that order on a transparent insulating substrate, the method comprising a step of forming the back electrode layer by the method for making the transparent conductive film according to any one of Claims 1 to 5, the transparent insulating substrate being used as the substrate.

7. A method for making a tandem thin-film photoelectric converter comprising a transparent electrode layer, at least one amorphous silicon photoelectric conversion unit, at least one crystalline silicon photoelectric conversion unit, and a back electrode layer stacked in that order on a transparent insulating substrate, the method comprising a step of forming the transparent electrode layer by the method for making the transparent conductive film according to any one of Claims 1 to 5, the transparent insulating substrate being used as the substrate.